

## ABSTRACT OF THE DISCLOSURE

A monitoring apparatus for operating a clean-in-place system is disclosed. The clean-in-place system is in fluid communication with an inlet and an outlet of the apparatus. A cleaning composition having a measurable physical property (e.g., pH) is supplied from a cleaner tank into the inlet of the apparatus for a first period of time. A  
5 rinsing composition having the measurable physical property at a second measured value is then supplied from a rinse tank into the inlet of the apparatus for a second period of time. The measurable physical property is sensed versus time for fluids exiting the outlet of the apparatus, and a circulation time of the cleaning composition is determined. A closing time for a return valve of the cleaner tank is then determined for  
10 the instant and subsequent cleaning cycles such that minimal rinsing composition enters the cleaner tank.